

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION

ORDER NO. 82-27

Closure Requirements For
Sierra Point Development Company
and the City of Brisbane,
Sierra Point Class II-2 solid waste disposal site
San Mateo County

The California Regional Water Quality Control Board, San Francisco Bay Region (hereinafter called the Board), finds that:

1. Sierra Point Development Company owns approximately 114 acres and the City of Brisbane owns approximately 20 acres of the former Sierra Point Landfill. The Sierra Point Development Company and the City of Brisbane are hereinafter jointly called the discharger. The site is located adjacent to the San Francisco Bay, as shown in Attachment 'A'. The landfill operated between 1965 and 1972, and was used for the disposal of Group 2 wastes.
2. This site is being developed into an office park and a marina.
3. This Board has not previously considered requirements for this site.
4. The dischargers have submitted to the Board a report entitled "Interim site grading, settlement, and sealing report, Sierra Point Office park" and plans entitled "Slope protection and shoreline grading." The report and plans address final cover, site drainage and grades, stability and leachate control. The report and plans are consistent with this Board's waste disposal site Closure Guidelines. An impermeable bay mud dike exists along the three Bay sides of the landfill. A storm drainage system is being constructed to carry runoff from the site. A slurry trench has been constructed on the West side of the site to prevent lateral seepage of leachate. The slurry trench is keyed into an outcropping of bedrock on the South end and into the dike at the North end of the site. The clay cap will also be keyed into the dike. Any future leachate seeps would be contained by slurry trenching down into the dike.
5. Construction of the clay cap and the storm drain system has begun, but completion will be concurrent with the development of the site over the next 5 to 6 years. This timing should not adversely effect water quality because there is 6 to 8 feet of clean fill over the refuse, rough grading has been completed, and the perimeter storm drain catch basins and outfalls and placement of additional rip-rap will be completed by October 1982. Leachate levels are being monitored.

6. The beneficial uses of San Francisco Bay are:

- navigation
- commercial and sports fishing
- recreation
- wildlife habitat
- marine habitat
- shellfish harvesting
- preservation of rare and endangered species

7. Land within 1000 feet of the site is used for industry and open space.

8. This site, after completion of proposed activities will meet the criteria contained in the California Administrative Code, Title 23, Chapter 3, Subchapter 15, for classification as a Class II-2 disposal site which has received group 2 wastes and group 3 wastes.

9. The Board adopted a Water Quality Control Plan for the San Francisco Bay Basin in April 1975 and this Order implements the Water Quality Objectives stated in that Plan.

10. This Board has notified the discharger and interested agencies and persons of its intent to prescribe waste discharge requirements for the discharge and has provided them with an opportunity for a public hearing and an opportunity to submit their written views and recommendations.

11. The Board, in a public meeting, heard and considered all comments pertaining to the discharge.

12. This project involves the closure of a publicly and privately owned Class II-2 facility with minor alterations to the land. Consequently, this project will not have a significant effect on the environment based upon the exemption provided in Section 15101, Title 14, California Administrative Code.

IT IS HEREBY ORDERED that, Sierra Point Development Company and the City of Brisbane shall comply with the following:

A. Site Closure Specifications

1. This solid waste disposal site shall be maintained in compliance with this Board's Resolution No. 77-7 and in accordance with the closure plans cited in Finding 4 of this Order. These plans include specifications for final cover, drainage control, grading and Leachate control.
2. No group 1 or additional group 2 wastes shall be stored or deposited on this site.
3. The site shall be provided with a storm drain system to promote lateral runoff of precipitation and to minimize the infiltration of precipitation.

4. The site shall be covered with a minimum of three feet of clean soil, one foot of which is to be compacted to attain a permeability no greater than 10^{-6} cm/sec.

B. Leachate and Drainage Specifications

1. Leachate or water which has contacted waste from this site shall not be discharged to waters of the State.
2. The completed disposal area shall be protected from any washout or erosion which could occur as a result of a flood having a predicted frequency of once in 100 years. The storm drain system and all other drainage facilities shall be maintained to convey maximum anticipated storm runoff and to withstand differential settlement.
3. The migration of methane gas from the disposal site shall be controlled as necessary to prevent the creation of any nuisance.
4. Any waste materials which have or threaten to be discharged from the disposal site shall be relocated or removed to an approved disposal site.

C. Provisions:

1. The discharger shall comply with all portions of this Order immediately upon adoption of this Order except Specifications A.3., A.4., and B.2.
2. The discharger shall comply and provide documentation of compliance with Specification B.2 by July 15, 1982.
3. The discharger shall submit status reports on the progress of compliance with Specifications A.3., and A.4., on a quarterly basis beginning July 1, 1982, until compliance is achieved. The first report shall contain a projected time schedule for final compliance.
4. This Board considers the current property owners of any new owner to have a continuing responsibility for correcting any problems associated with this solid waste disposal site during subsequent use of the land for other purposes.
5. The discharger shall notify this Board in writing of any proposed change in ownership of this site. The current owners shall notify and provide a copy of this Order to any subsequent owner of this property or portion thereof prior to sale.
6. The discharger shall file with the Board any monitoring program which may be directed by the Executive Officer.
7. The discharger shall permit the Regional Board or its authorized representatives in accordance with California Water Code Section 13267(c):

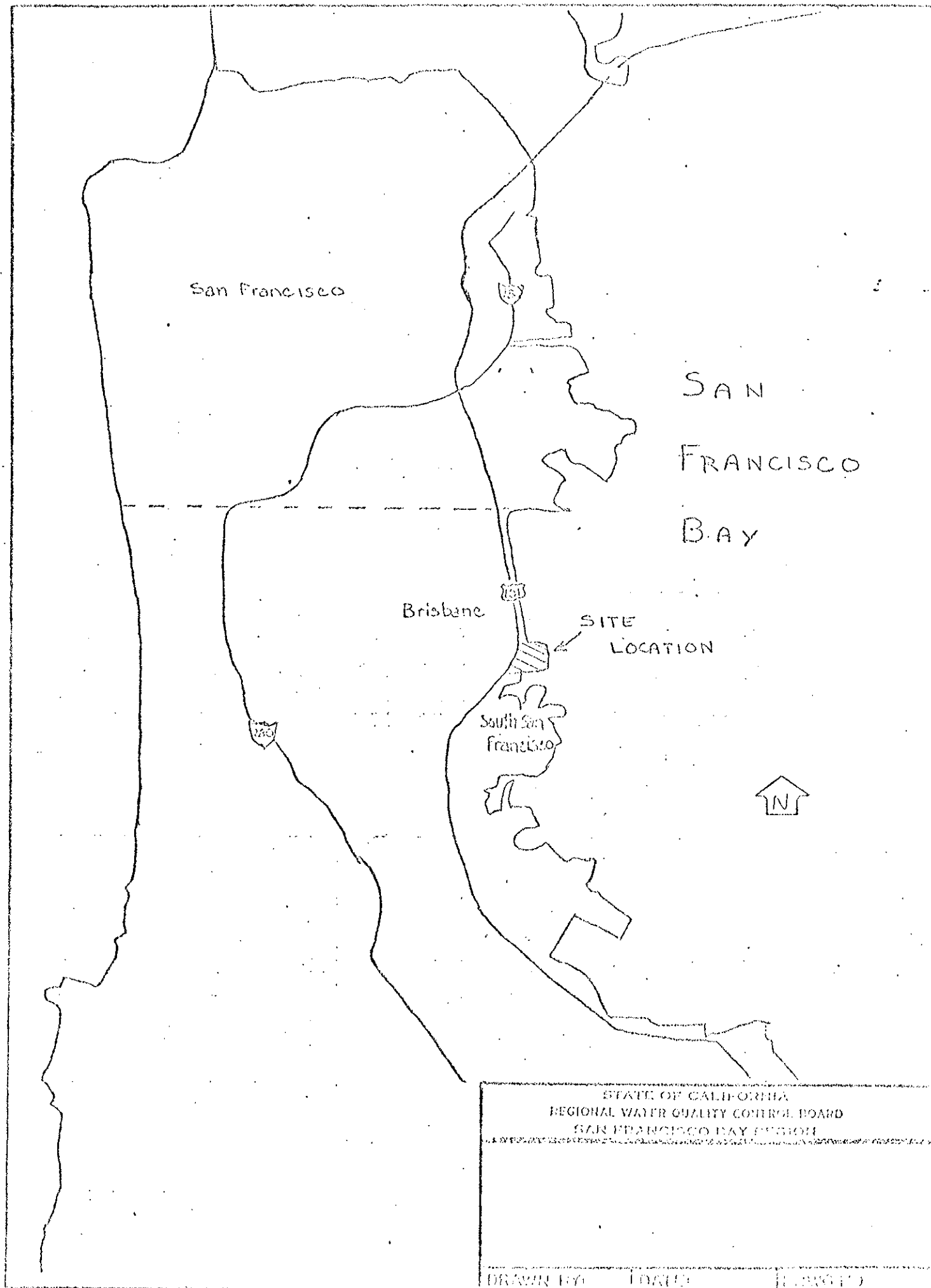
- a. Entry upon premises on which waste are located or in which any required records are kept,
- b. Access to copy any records required to be kept under terms and conditions of this order,
- c. Inspection of monitoring equipment or records, and
- d. Sampling of any discharge.

I, Fred H. Dierker, Executive Officer, do hereby certify that the foregoing is a full, true, and correct copy of an Order adopted by the California Regional Water Quality Control Board, San Francisco Bay Region, on June 16, 1982

FRED H. DIERKER
Executive Officer

Attachment:

- A - Map
- B - Resolution No. 77-7



CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION

RESOLUTION NO. 77-7

MINIMUM CRITERIA FOR PROPER CLOSURE OF
CLASS II SOLID WASTE DISPOSAL SITES

- I. WHEREAS, experience has shown that Class II solid waste disposal sites can be sources of serious water pollution problems even after their use has been terminated, unless properly closed, and
- II. WHEREAS, these problems may include: odors, discharge of leachate, exposed refuse due to inadequate cover, and ponding of refuse-polluted water on the site, and
- III. WHEREAS, Section 2535 of the California Administrative Code provides as follows:

Completion of Disposal Operations. (a) Prior to cessation of disposal operations at a waste disposal site, the operator shall submit a technical report to the appropriate regional board describing the methods and controls to be used to assure protection of the quality of surface and groundwaters of the area during final operations and with any proposed subsequent use of the land. This report shall be prepared by or under the supervision of a registered engineer or a certified engineering geologist.

(b) The methods used to close a site and assure continuous protection of the quality of surface and groundwater shall comply with waste discharge requirements established by the regional board.

(c) The owner of the waste disposal site shall have a continuing responsibility to assure protection of useable waters from the waste discharge, and from gases and leachate that are caused by infiltration of precipitation or drainage waters into the waste disposal areas or by infiltration of water applied to the waste disposal areas during subsequent use of the property for other purposes, and

- IV. WHEREAS, the establishment of minimum criteria for proper closure of Class II solid waste disposal sites is desirable to protect the quality of waters of the State and to alert site owners and operators as to their specific responsibilities, and

- V. WHEREAS, pursuant to Section 15104 of the California Environmental Quality Act Guidelines, this Resolution applies to minor alterations to land which do not have significant adverse effects on the environment and is therefore exempt from the provisions of the Act.
- VI. THEREFORE BE IT RESOLVED that this Regional Board establishes the following minimum criteria for proper closure and subsequent maintenance of Class II solid waste disposal site:
1. All completed disposal areas shall be compacted and provided with a final cover of at least three feet of clean soil. A lesser thickness of final cover may be allowed upon a demonstration that, due to thorough compaction of refuse or other factors, differential settlement is likely to be minimal. At least one foot of the final cover shall be compacted to attain a permeability no greater than 10^{-6} cm/sec. Exceptions to this requirement may be granted upon a demonstration that equivalent protection against water penetration may be provided by other means.
 2. Completed disposal areas shall be graded and maintained to prevent ponding and to provide slopes of at least three percent. Lesser slopes may be allowed if a sewer system or other equivalent means of carrying off surface drainage is provided. Steep areas, surface drainage courses, or other areas subject to erosion shall be provided with a lining, or planted with vegetation, or otherwise designed to prevent such erosion.
 3. Slopes shall be designed to minimize the potential for sliding by control of grades, drainage, or other means. Any slides observed within the disposal area shall be promptly stabilized, and the Executive Officer shall be notified immediately upon discovery of a slide.
 4. All necessary facilities shall be provided to ensure that leachate from group 2 waste and ponded water containing leachate or in contact with refuse is not discharged to surface waters of the State.
 5. The disposal area(s) shall be protected from any washout or erosion and from inundation, which could occur as a result of tides or of floods having a predicted frequency of once in 100 years.
 6. All necessary facilities shall be provided to protect usable groundwaters from degradation as a result of leachate discharges or carbon dioxide migration.
 7. The migration of methane gas from group 2 waste shall be controlled as necessary to prevent creation of a nuisance.

VII. BE IT FURTHER RESOLVED that this Board's Executive Officer will request that closure plans be submitted by operators of all Class II sites at the earliest practicable date. Closure plans will be approved by this Board by inclusion in waste discharge requirements. The Board will amend closure plans as necessary to provide for conformance with the above minimum criteria. Site closure plans shall include the following:

- a. The boundaries of areas used for waste disposal.
- b. Method of control of surface drainage flow from the site.
- c. Evaluation of the anticipated settlement due to decomposition and consolidation of the wastes.
- d. Thickness of cover and physical properties including permeability, expansion characteristics and erodibility.
- e. Relationship of waste disposal area to underlying groundwater quality.
- f. Location of groundwater monitoring points.
- g. Method for control of methane.
- h. Proposed subsequent use of the land.

VIII. BE IT FURTHER RESOLVED that this Board will normally require implementation of the site closure plan as rapidly as possible after completion of group 2 waste disposal operations at a site or portion thereof. The Board may authorize delays of specified duration in meeting final slope requirements pending determination of subsequent land use, provided interim measures are taken to protect water quality.

IX. BE IT FURTHER RESOLVED that it is the intention of this Board to take all measures practicable to ensure that subsequent owners of sites are made aware of site closure requirements.

I, Fred H. Dierker, Executive Officer, do hereby certify the foregoing is a full, true, and correct copy of a Resolution adopted by the California Regional Water Quality Control Board, San Francisco Bay Region, on July 19, 1977.

FRED H. DIERKER
Executive Officer